Statement of Basis

Permit to Construct No. P-2009.0134
Project ID 61467

Glanbia Foods, Inc.
Richfield Facility
Richfield, Idaho

Facility ID 063-00003

Final

April 28, 2015
Randy Stegen
Permit Writer

The purpose of this Statement of Basis is to satisfy the requirements of IDAPA 58.01.01.et seq, Rules for the Control of Air Pollution in Idaho, for issuing air permits.

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ACRONYMS, UNITS, AND CHEMICAL NOMENCLATURE

Btu	British thermal units
CAA	Clean Air Act
CFR	Code of Federal Regulations
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	CO_2 equivalent emissions
COMS	continuous opacity monitoring systems
DEQ	Department of Environmental Quality
EPA	U.S. Environmental Protection Agency
HAP	hazardous air pollutants
hp	horsepower
IDAPA	a numbering designation for all administrative rules in Idaho promulgated in accordance with the Idaho Administrative Procedures Act
LNG	Liquefied Natural Gas
MACT	Maximum Achievable Control Technology
MMBtu	million British thermal units
NAAQS	National Ambient Air Quality Standard
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_2	nitrogen dioxide
NO_x	nitrogen oxides
NSPS	New Source Performance Standards
O_2	oxygen
PC	permit condition
PM	particulate matter
$PM_{2.5}$	particulate matter with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers
PSD	Prevention of Significant Deterioration
PTC	permit to construct
PTE	potential to emit
Rules	*Rules for the Control of Air Pollution in Idaho*
SO_2	sulfur dioxide
SO_x	sulfur oxides
T/day	tons per calendar day
T/hr	tons per hour
T/yr	tons per consecutive 12 calendar month period
TAP	toxic air pollutants
ULSD	ultra-low sulfur diesel
U.S.C.	United States Code
VOC	volatile organic compounds

FACILITY INFORMATION

Description

The Glanbia Foods, Inc. facility in Richfield processes whey into lactose products, whey protein concentrate, and Provon® (a high protein content whey concentrate). Whey is processed through filtration; the products are dried in baghouse dryers and packaged on-site.

Steam produced from two LNG-fired boilers is used in conjunction with electric heat to dry and capture whey in three dryer-baghouse product recovery units. In addition, the facility also captures cheese whey by maintaining an electric research and development (R&D) dryer with a wet scrubber and a Phoenix dryer-baghouse product recovery unit indirectly fired on LNG. The facility also utilizes eight mini-baghouse systems for product recovery from conveyors, transfer points, and storage bins.

Permitting History

The following information was derived from a review of the permit files available to DEQ. Permit status is noted as active and in effect (A) or superseded (S).

June 3, 2011	P-2009.0134, PTC modification to change the fuel used from propane/LNG to LNG and removal of three propane vaporizers (A, but will become S upon issuance of this permit)
December 9, 2009	P-2009.0134, Tier 2/PTC to PTC conversion, Permit status (S)
May 16, 2006	T2-050413, Initial Tier 2/PTC permit, Permit status (S)
May 7, 2000	Permit number 063-00003, Facility name change, Permit status (S)
June 9, 1995	Permit number 063-00003, Installation of the Cleaver-Brooks boiler and permit modification of the Kewanee boiler, Permit status (S)
June 6, 1994	Permit number 063-00003, Removal of the PM source testing requirements, Permit status (S)
August 27, 1992	Permit number 063-00003, Administrative Amendment, Permit status (S)
July 22, 1992	Permit number 063-00003, Replacing the Kewanee boiler, Permit status (S)

Application Scope

This PTC is a revision of an existing permit. The applicant wishes to:

- Replace the Niro 50 receiver which is rated and permitted for 800 cfm with a new baghouse receiver which has an efficiency rating of 99.98% down to 0.5 microns. The Niro 125 dryer exhaust will also be routed to this bag receiver. The new receiver system will have an Equipment ID of Niro 125/50 combined receiver/BC10A.
- Relocate the Niro 50 stack to take the airstream from the new Niro 125/50 combined receiver. This relocation will raise the stack from its current height of 34'5" to 64'11".

This application also requested the removal of three propane vaporizers (Ransom 1, Ransom 2, and Sam Dick) from the permit because the equipment has been removed. The propane vaporizers were previously removed from the PTC as part of the June 3, 2011 PTC modification so no additional action is needed.

Application Chronology

January 9, 2015	DEQ received an application and an application fee.
February 10, 2015	DEQ determined that the application was complete.

March 4, 2015	DEQ made available the draft permit and statement of basis for peer and regional office review.
March 11, 2015	DEQ made available the draft permit and statement of basis for applicant review.
April 21, 2015	DEQ received the permit processing fee.
April 28, 2015	DEQ issued the final permit and statement of basis.

TECHNICAL ANALYSIS

Emissions Units and Control Devices

Table 1. EMISSIONS UNITS AND CONTROL DEVICES			
ID No.	**Source Description**	**Control Equipment Description**	**Emissions Point ID No. and Description**
B17	Cleaver-Brooks Boiler: Manufacturer: Cleaver-Brooks Model: CB-200-600-160 Heat input rating: 25.13 MMBtu/hr Fuel: LNG	None	Exit height: 43.0 ft (13.1 m) Exit diameter: 2.0 ft (0.61 m) Exit flow rate: 8,006 acfm Exit temperature: 370 °F (187.8 °C)
B18	Kewanee Boiler: Manufacturer: Kewanee Classic III Model: H3S-600G02 Heat input rating: 25.13 MMBtu/hr Fuel: LNG	None	Exit height: 35.2 ft (9.8 m) Exit diameter: 2.2 ft (0.67 m) Exit flow rate: 8,006 acfm Exit temperature: 370 °F (187.8 °C)
BD1	Baghouse Dryer No. 1: Manufacturer: Blau Knox Model: not available Uses boiler steam for drying Max. Production Rate: 300 lb/hr dry solids	None	Exit height: 32.8 ft (10.1 m) Exit diameter: 1.57 ft (0.48 m) Exit flow rate: 10,000 acfm Exit temperature: 167.1 °F (75.1 °C)
BD2	Baghouse Dryer No. 2: Manufacturer: Niro Model: 50 Uses boiler steam for drying Max. Production Rate: 150 lb/hr dry solids	None	Exit height: 37.07 ft (11.3 m) Exit diameter: 0.98 ft (0.30 m) Exit flow rate: 2,500 acfm Exit temperature: 167.1 °F (75.1 °C)
BD3	Baghouse Dryer No. 3 (Provon dryer): Manufacturer: Niro Model: 125 Uses boiler steam for drying Max. Production Rate: 600 lb/hr dry solids	None	Exit height: 53.1 ft (16.2 m) Exit diameter: 1.67 ft (0.51 m) Exit flow rate: 6,500 acfm Exit temperature: 167.1 °F (75.1 °C)
BD4	R&D Dryer: Manufacturer: Evaporator Technologies, Inc. Model: SD-6.3-N Max. Production Rate: 20 lb/hr dry solids	Wet Scrubber: Manufacturer: Evaporator Technologies, Inc. Model: WSR-29	Exit height: 19.0 ft (5.80 m) Exit diameter: 0.33 ft (0.10 m) Exit flow rate: 760 acfm Exit temperature: 167.1 °F (75.1 °C)
BD5	Baghouse Dryer No. 4: Manufacturer: Phoenix Model: not available Heat input rating: 8 MMBtu/hr Max. Production Rate: 2,000 lb/hr dry solids Fuel: LNG	None	Exit height: 66.6 ft (20.30 m) Exit diameter: 2.49 ft (0.76 m) Exit flow rate:16,000 acfm Exit temperature: 167 °F (75.0 °C) Burner Exit flow rate: 1,872 acfm Exit temperature: 248 °F (120.0 °C)
BC10A	Conveyor Baghouse: Manufacturer: GAF Model: HL4800UD Conveyor: Niro 125/50 combined line to bin Max. Input Rate: 700 lb/hr dry solids	N/A	Exit height: 64'11" (19.8 m) Exit diameter: 0.49 ft (0.15 m) Exit flow rate: 700 acfm Exit temperature: 167 °F (75.1 °C)
BC10B	Conveyor Baghouse: Manufacturer: Turbotron Model: TB010RA 15CK Conveyor: Phoenix line to bin Max. Input Rate: 1,200 lb/hr dry solids	N/A	Exit height: 66.6 ft (20.3 m) Exit diameter: 0.49 ft (0.15 m) Exit flow rate: 400 acfm Exit temperature: 167 °F (75.1 °C)

TABLE 1. EMISSIONS UNITS AND CONTROL DEVICES (continued)			
ID No.	**Source Description**	**Control Equipment Description**	**Emissions Point ID No. and Description**
BC11	Conveyor Baghouse: Manufacturer: New York Blower Co. Model: F-5762-140 Conveyor: Phoenix line to receiver Max. Input Rate: 1,200 lb/hr dry solids	N/A	Exit height: 65.6 ft (20.0 m) Exit diameter: 0.49 ft (0.15 m) Exit flow rate: 800 acfm Exit temperature: 167 °F (75.1 °C)
BC16	Conveyor Baghouse: Manufacturer: New York Blower Co. Model: 2106 Conveyor: Blau Knox line to D50 receiver Max. Input Rate: 250 lb/hr dry solids	N/A	Exit height: 14.1 ft (4.30 m) Exit diameter: 0.49 ft (0.15 m) Exit flow rate: 500 acfm Exit temperature: 167 °F (75.1 °C)
BC13	Conveyor Baghouse: Manufacturer: Abb Richardson Model: PPHVD Conveyor: Blau Knox line to D7 receiver Max. Input Rate: 350 lb/hr dry solids	N/A	Exit height: 65.0 ft (19.8 m) Exit diameter: 0.66 ft (0.20 m) Exit flow rate: 800 acfm Exit temperature: 167 °F (75.1 °C)
BH15	Indoor air (quality control)	Baghouse: Manufacturer: Lamsen Model: Vacuum baghouse	
Heat 1 through Heat 13	Thirteen Building heaters: Heat input rating: < 0.25 MMBtu/hr Fuel: LNG	N/A	Exit heights: 6.0 ft (1.83 m) to 63.0 ft (19.21 m) Exit diameters: 0.20 ft (0.06 m) Exit flow rates: 800 acfm Exit temperatures:76.7 °F (24.9 °C)

Emissions Inventories

Potential to Emit

IDAPA 58.01.01 defines Potential to Emit as the maximum capacity of a facility or stationary source to emit an air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is state or federally enforceable. Secondary emissions do not count in determining the potential to emit of a facility or stationary source.

Using this definition of Potential to Emit, an emission inventory was developed for the two boilers, the four baghouse dryers, the six conveyor baghouses, and the thirteen building heaters associated with the operations at the facility (see Appendix A) associated with this proposed project. Emissions estimates of criteria pollutant PTE were based on emission factors from AP-42, operation of 8,760 hours per year, and process information specific to the facility for this proposed project.

Uncontrolled Potential to Emit

Using the definition of Potential to Emit, uncontrolled Potential to Emit is then defined as the maximum capacity of a facility or stationary source to emit an air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the facility or source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored or processed, shall **not** be treated as part of its design **since** the limitation or the effect it would have on emissions **is not** state or federally enforceable.

The uncontrolled Potential to Emit is used to determine if a facility is a "Synthetic Minor" source of emissions. Synthetic Minor sources are facilities that have an uncontrolled Potential to Emit for criteria pollutants or HAPs above the applicable Major Source threshold without permit limits.

Uncontrolled emissions were not calculated for this facility because the facility was previously determined to be a "B" minor source and there is no change in facility classification proposed with this project.

Pre-Project Potential to Emit

Pre-project Potential to Emit is used to establish the change in emissions at a facility as a result of this project.

This is an existing facility. Therefore, the pre-project potential to emit was taken from P-2009.0134 dated June 3, 2011. The following table presents the pre-project potential to emit for all criteria pollutants from all emissions units at the facility as submitted by the Applicant and verified by DEQ staff.

TABLE 2. PRE-PROJECT POTENTIAL TO EMIT FOR CRITERIA POLLUTANTS

Emissions Unit	$PM_{10}/PM_{2.5}$		SO_2		NO_X		CO		VOC	
	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]
Point Sources										
Cleaver Brooks Boiler/B17	0.25	1.10	0.03	0.11	3.02	13.21	3.77	16.51	0.40	1.76
Kewanee Boiler/B18	0.19	0.84	0.02	0.07	2.51	11.01	2.11	9.25	0.14	0.61
Blau Knox Baghouse-Dryer/BD1	0.03	0.13	-	-	-	-	-	-	-	-
Niro 50 Baghouse-Dryer/BD2	0.01	0.07	-	-	-	-	-	-	-	-
Niro 125 Baghouse-Dryer/BD3	0.06	0.26	-	-	-	-	-	-	-	-
Niro – R&D Dryer with Wet Scrubber/BD4	0.03	0.14	-	-	-	-	-	-	-	-
Phoenix Baghouse-Dryer/BD5	0.20	0.88	-	-	-	-	-	-	-	-
Niro 125 Baghouse-Conveyor/BC10A	0.01	0.03	-	-	-	-	-	-	-	-
Phoenix Baghouse-Conveyor1/BC10B	0.12	0.53	-	-	-	-	-	-	-	-
Phoenix Baghouse-Conveyor2/BC11	0.12	0.53	-	-	-	-	-	-	-	-
Niro 50 Baghouse-Conveyor/BC12	0.03	0.11	-	-	-	-	-	-	-	-
Blau Knox Baghouse-Conveyor1/BC13	0.03	0.11	-	-	-	-	-	-	-	-
Blau Knox Baghouse Conveyor2/BC16	0.04	0.15	-	-	-	-	-	-	-	-
Nuisance Dust Baghouse/BH14	0.001	0.004	-	-	-	-	-	-	-	-
Lamsen Vacuum Baghouse/BH15	0.001	0.004	-	-	-	-	-	-	-	-
Phoenix Dryer Element/DE6	0.06	0.27	0.005	0.02	0.80	3.50	0.67	2.94	0.04	0.19
Milling Room Heater/Heat1	0.001	0.005	0.001	0.0004	0.01	0.06	0.006	0.03	0.001	0.004
Chemical Room Heater/Heat2	0.003	0.013	0.0002	0.001	0.04	0.18	0.03	0.15	0.002	0.010
Provon T-3 Room/Heat3	0.002	0.008	0.0002	0.001	0.02	0.10	0.01	0.04	0.001	0.006
Alcove Room Heater1/Heat4	0.001	0.003	0.0001	0.0002	0.008	0.03	0.003	0.01	0.0005	0.002
Alcove Room Heater2/Heat5	0.001	0.004	0.0001	0.0004	0.01	0.06	0.005	0.02	0.001	0.003
Milling Comp. Room Heater/Heat13	0.001	0.004	0.0001	0.0003	0.01	0.05	0.005	0.02	0.001	0.003
Office Conf. Room Heater/Heat6	0.001	0.005	0.0001	0.0004	0.01	0.06	0.006	0.02	0.001	0.003
Packaging Room Heater/Heat7	0.002	0.007	0.0001	0.0005	0.02	0.08	0.008	0.04	0.001	0.005
Bryant Roof Heater	0.001	0.004	0.0001	0.0003	0.01	0.05	0.005	0.02	0.001	0.003
Alcove Roof Heater	0.0002	0.001	0.00002	0.0001	0.003	0.01	0.001	0.005	0.0002	0.001
West Shed #1 Heater	0.001	0.005	0.0001	0.0004	0.01	0.06	0.006	0.03	0.001	0.004
East Shed Heater #2	0.001	0.005	0.0001	0.0004	0.01	0.06	0.006	0.03	0.001	0.004
Lab Heater	0.001	0.004	0.0001	0.0003	0.01	0.051	0.005	0.02	0.001	0.003
Pre-Project Totals	**1.20**	**5.23**	**0.06**	**0.21**	**6.50**	**28.57**	**6.65**	**29.14**	**0.59**	**2.61**

a) Controlled average emission rate in pounds per hour is a daily average, based on the proposed daily operating schedule and daily limits.
b) Controlled average emission rate in tons per year is an annual average, based on the proposed annual operating schedule and annual limits.

Post Project Potential to Emit

Post project Potential to Emit is used to establish the change in emissions at a facility and to determine the facility's classification as a result of this project. Post project Potential to Emit includes all permit limits resulting from this project.

The following table presents the post project Potential to Emit for criteria pollutants from all emissions units at the facility as determined by DEQ staff. See Appendix A for a detailed presentation of the calculations of these emissions for each emissions unit being modified as a result of this project.

TABLE 3. POST-PROJECT POTENTIAL TO EMIT FOR CRITERIA POLLUTANTS										
Emissions Unit	$PM_{10}/PM_{2.5}$		SO_2		NO_X		CO		VOC	
	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]	lb/hr[a]	T/yr[b]
Point Sources										
Cleaver Brooks Boiler/B17	0.25	1.10	0.03	0.11	3.02	13.21	3.77	16.51	0.40	1.76
Kewanee Boiler/B18	0.19	0.84	0.02	0.07	2.51	11.01	2.11	9.25	0.14	0.61
Blau Knox Baghouse-Dryer/BD1	0.03	0.13	-	-	-	-	-	-	-	-
Niro 50 Baghouse-Dryer/BD2	0.01	0.07	-	-	-	-	-	-	-	-
Niro 125 Baghouse-Dryer/BD3	0.06	0.26	-	-	-	-	-	-	-	-
Niro – R&D Dryer with Wet Scrubber/BD4	0.03	0.14	-	-	-	-	-	-	-	-
Phoenix Baghouse-Drye/BD5	0.20	0.88	-	-	-	-	-	-	-	-
Niro 125/50 Combined Baghouse-Conveyor/BC10A	0.04	0.12	-	-	-	-	-	-	-	-
Phoenix Baghouse-Conveyor1/BC10B	0.12	0.53	-	-	-	-	-	-	-	-
Phoenix Baghouse-Conveyor2/BC11	0.12	0.53	-	-	-	-	-	-	-	-
Blau Knox Baghouse-Conveyor1/BC13	0.03	0.11	-	-	-	-	-	-	-	-
Blau Knox Baghouse Conveyor2/BC16	0.04	0.15	-	-	-	-	-	-	-	-
Nuisance Dust Baghouse/BH14	0.001	0.004	-	-	-	-	-	-	-	-
Lamsen Vacuum Baghouse/BH15	0.001	0.004	-	-	-	-	-	-	-	-
Phoenix Dryer Element/DE6	0.06	0.27	0.005	0.02	0.80	3.50	0.67	2.94	0.04	0.19
Milling Room Heater/Heat1	0.001	0.005	0.001	0.0004	0.01	0.06	0.006	0.03	0.001	0.004
Chemical Room Heater/Heat2	0.003	0.013	0.0002	0.001	0.04	0.18	0.03	0.15	0.002	0.010
Provon T-3 Room/Heat3	0.002	0.008	0.0002	0.001	0.02	0.10	0.01	0.04	0.001	0.006
Alcove Room Heater1/Heat4	0.001	0.003	0.0001	0.0002	0.008	0.03	0.003	0.01	0.0005	0.002
Alcove Room Heater2/Heat5	0.001	0.004	0.0001	0.0004	0.01	0.06	0.005	0.02	0.001	0.003
Milling Comp. Room Heater/Heat13	0.001	0.004	0.0001	0.0003	0.01	0.05	0.005	0.02	0.001	0.003
Office Conf. Room Heater/Heat6	0.001	0.005	0.0001	0.0004	0.01	0.06	0.006	0.02	0.001	0.003
Packaging Room Heater/Heat7	0.002	0.007	0.0001	0.0005	0.02	0.08	0.008	0.04	0.001	0.005
Bryant Roof Heater	0.001	0.004	0.0001	0.0003	0.01	0.05	0.005	0.02	0.001	0.003
Alcove Roof Heater	0.0002	0.001	0.00002	0.0001	0.003	0.01	0.001	0.005	0.0002	0.001
West Shed #1 Heater	0.001	0.005	0.0001	0.0004	0.01	0.06	0.006	0.03	0.001	0.004
East Shed Heater #2	0.001	0.005	0.0001	0.0004	0.01	0.06	0.006	0.03	0.001	0.004
Lab Heater	0.001	0.004	0.0001	0.0003	0.01	0.051	0.005	0.02	0.001	0.003
Post-Project Totals	**1.20**	**5.21**	**0.06**	**0.21**	**6.50**	**28.57**	**6.65**	**29.14**	**0.59**	**2.61**

a) Controlled average emission rate in pounds per hour is a daily average, based on the proposed daily operating schedule and daily limits.
b) Controlled average emission rate in tons per year is an annual average, based on the proposed annual operating schedule and annual limits.

Change in Potential to Emit

The change in facility-wide potential to emit is used to determine if a public comment period may be required and to determine the processing fee per IDAPA 58.01.01.225. The following table presents the facility-wide change in the potential to emit for criteria pollutants.

Table 4. CHANGE IN CONTROLLED EMISSIONS ESTIMATES OF CRITERIA POLLUTANTS (POTENTIAL TO EMIT)											
	PM_{10}		SO_2		NO_X		CO		VOC		Lead
	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/hr	T/yr	lb/qtr
Pre-Project Totals	1.20	5.23	0.06	0.21	6.50	28.57	6.50	29.14	0.59	2.61	0.00
Post-Project Totals	1.20	5.21	0.06	0.21	6.50	28.57	6.50	29.14	0.59	2.61	0.00
Facility Total Change in Emissions	**0.00**	**-0.02**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Ambient Air Quality Impact Analyses

Emissions will not increase as a result of this permitting action, thus the ambient air quality impact analysis is not required.

REGULATORY ANALYSIS

Attainment Designation (40 CFR 81.313)

The facility is located in Lincoln County, which is designated as attainment or unclassifiable for $PM_{2.5}$, PM_{10}, SO_2, NO_2, CO, and Ozone. Refer to 40 CFR 81.313 for additional information.

Permit to Construct (IDAPA 58.01.01.201)

IDAPA 58.01.01.201 ..... Permit to Construct Required

The permittee has requested that a PTC be issued to the facility for the proposed revision. Therefore, a permit to construct is required to be issued in accordance with IDAPA 58.01.01.220. This permitting action was processed in accordance with the procedures of IDAPA 58.01.01.200-228.

Tier II Operating Permit (IDAPA 58.01.01.401)

IDAPA 58.01.01.401 ..... Tier II Operating Permit

The application was submitted for a permit to construct (refer to the Permit to Construct section), and an optional Tier II operating permit has not been requested. Therefore, the procedures of IDAPA 58.01.01.400–410 were not applicable to this permitting action.

Visible Emissions (IDAPA 58.01.01.625)

IDAPA 58.01.01.625 ..... Visible Emissions

The sources of $PM_{10}/PM_{2.5}$ emissions at this facility are subject to the State of Idaho visible emissions standard of 20% opacity. This requirement is assured by Permit Conditions 8, 17, and 27.

Standards for New Sources (IDAPA 58.01.01.676)

IDAPA 58.01.01.676..... Standards for New Sources

The fuel burning equipment located at this facility, with a maximum rated input of ten (10) million BTU per hour or more, are subject to a particulate matter limitation of 0.015 gr/dscf of effluent gas corrected to 3% oxygen by volume when combusting gaseous fuels. Fuel-burning equipment is defined as any furnace, boiler, apparatus, stack and all appurtenances thereto, used in the process of burning fuel for the primary purpose of producing heat or power by indirect heat transfer. The applicant has calculated the grain loading of the stack gasses when combusting LNG to demonstrate compliance with this applicable standard as follows:

For the Cleaver-Brooks Boiler:

Fd = 8,710 dscf/MMBtu with an exhaust flow rate of 4,259.4 dscf @ 3% O_2

This results in a calculated grain loading of 0.007 gr/dscf

For the Kewanee Classic Boiler:

Fd = 8,710 dscf/MMBtu with an exhaust flow rate of 4,271.3 dscf @ 3% O_2

This results in a calculated grain loading of 0.005 gr/dscf

This requirement is assured by Permit Condition 2.5 which requires that only LNG shall be used for combustion in the boilers.

Particulate Matter – New Equipment Process Weight Limitations (IDAPA 58.01.01.701)

IDAPA 58.01.01.701 Particulate Matter – New Equipment Process Weight Limitations

IDAPA 58.01.01.700 through 703 set PM emission limits for process equipment based on when the piece of equipment commenced operation and the piece of equipment's process weight (PW) in pounds per hour (lb/hr). IDAPA 58.01.01.701 and IDAPA 58.01.01.702 establish PM emission limits for equipment that commenced operation on or after October 1, 1979 and for equipment operating prior to October 1, 1979, respectively.

This facility has equipment that is subject to the requirements of this Rule. However, this permitting action results in a small decrease in PM emissions from the replacement of cyclone receivers with baghouse receivers that have a higher PM control efficiency. Refer to permitting project P-2009.0134 dated December 9, 2009 for the discussion of these requirements.

Title V Classification (IDAPA 58.01.01.300, 40 CFR Part 70)

IDAPA 58.01.01.301 ..... Requirement to Obtain Tier I Operating Permit

Post-project facility-wide emissions from this facility do not have a potential to emit greater than 100 tons per year for PM10, SO2, NOx, CO, VOC, and HAPs or 10 tons per year for any one HAP or 25 tons per year for all HAPs combined as demonstrated in the previous Statement of Basis issued June 3, 2011. Therefore, the facility is not a Tier I source in accordance with IDAPA 58.01.01.006 and the requirements of IDAPA 58.01.01.301 do not apply.

PSD Classification (40 CFR 52.21)

40 CFR 52.21 ..... Prevention of Significant Deterioration of Air Quality

The facility is not a major stationary source as defined in 40 CFR 52.21(b)(1), nor is it undergoing any physical change at a stationary source not otherwise qualifying under paragraph 40 CFR 52.21(b)(1) as a major stationary source, if the changes would constitute a major stationary source by itself as defined in 40 CFR 52. Therefore in accordance with 40 CFR 52.21(a)(2), PSD requirements are not applicable to this permitting action. The facility is not a designated facility as defined in 40 CFR 52.21(b)(1)(i)(a), and does not have facility-wide emissions of any criteria pollutant that exceed 250 T/yr.

NSPS Applicability (40 CFR 60)

The facility is subject to the requirements of 40 CFR 60 Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.

40 CFR 60, Subpart Dc ..... Standards of Performance for Small Industrial–Commercial Institutional Steam Generating Units

§ 60.40c Applicability and Delegation of Authority

Section (a) specifies that except as provided in paragraph (d) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)) or less, but greater than or equal to 2.9 MW (10 MMBtu/hr).

(b) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, §60.48c(a)(4) shall be retained by the Administrator and not transferred to a State.

(c) Steam generating units that meet the applicability requirements in paragraph (a) of this section are not subject to the sulfur dioxide (SO_2) or particulate matter (PM) emission limits, performance testing requirements, or monitoring requirements under this subpart (§§60.42c, 60.43c, 60.44c, 60.45c, 60.46c, or 60.47c) during periods of combustion research, as defined in §60.41c.

The Cleaver-Brooks and Kewanee boilers at this facility combust LNG, are rated at between 10 MMBtu/hr and 100 MMBtu/hr, and were constructed after June 9, 1989.Therefore, the only Sections of this subpart that are applicable to the two boilers at this facility are the Applicability and Delegation of Authority specified in § CFR 60.40c(a), the Reporting requirements of § CFR 60.48c(a), (a)(1), and (a)(3), and the Recordkeeping requirements of § CFR 60.48c(g) and (i).

§ 60.41c Definitions

The definitions of this section apply to the facility.

§ 60.48c Reporting and recordkeeping requirements

(a) The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction and actual startup, as provided by §60.7 of this part. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

(2) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §60.42c, or §60.43c.

(3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

This requirement is assured by PTC condition 2.6.

Section (g)(1) requires that except as provided under paragraphs (g)(2) and (g)(3) of this section, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day.

As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in §60.48c(f) to demonstrate compliance with the SO_2 standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.

As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to this subpart) at that property are natural gas, wood, distillate oil meeting the most current requirements in §60.42C to use fuel certification to demonstrate compliance with the SO_2 standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month.

On September 13, 2005, the EPA granted Glanbia's request to reduce fuel usage recordkeeping requirements from daily to monthly, and to allow one gas meter to record monthly propane (fuel was changed to LNG in 2011 under a PTC modification) usage for both boilers.

These requirements are assured by PTC condition 2.7.

48g(i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

This requirement is assured by PTC condition 2.9.

NESHAP Applicability (40 CFR 61)

The facility is not subject to any NESHAP requirements in 40 CFR 61.

MACT Applicability (40 CFR 63)

The facility is not subject to any MACT standards in 40 CFR Part 63.

CAM Applicability (40 CFR 64)

The facility is not classified as a major source (refer to Title V Classification section). Because the facility does not require a Title V permit, the requirements of CAM are not applicable.

Permit Conditions Review

This section describes the permit conditions that have been added, revised, modified, or deleted as a result of this permitting action. Various permit conditions and references have been renumbered. The following tables have been revised to reflect the changes associated with this PTC revision:

Table 1.1. Regulated Sources

- Conveyor baghouse – Niro 50 line to receiver has been removed from Table 1.1 because this source has been combined with the Niro 125 line.
- Conveyor baghouse – Niro 125 line to bin has been revised to reflect the Niro 125/Niro 50 combined line to bin.

Table 4.1. Conveyor Baghouses Description

- Conveyor baghouse – Niro 50 line to receiver has been removed from Table 4.1 because this source has been combined with the Niro 125 line.
- Conveyor baghouse – Niro 125 line to bin has been revised to reflect the Niro 125/Niro 50 combined line to bin.

PUBLIC REVIEW

Public Comment Opportunity

Because this permitting action does not authorize an increase in emissions, an opportunity for public comment period was not required or provided in accordance with IDAPA 58.01.01.209.04 or IDAPA 58.01.01.404.04.

APPENDIX A – FACILITY DRAFT COMMENTS

The facility did not have any comments on the draft SOB or PTC.

APPENDIX B – PROCESSING FEE

PTC Fee Calculation

Instructions:
Fill in the following information and answer the following questions with a Y or N. Enter the emissions increases and decreases for each pollutant in the table.

Company: Glanbia Foods - Richfield Facility
Address: 121 4th Ave. South
City: Twin Falls
State: ID
Zip Code: 83301
Facility Contact: Dane Higdem
Title: Director, E,H&S
AIRS No.: 063-00003

N	Does this facility qualify for a general permit (i.e. concrete batch plant, hot-mix asphalt plant)? Y/N
Y	Did this permit require engineering analysis? Y/N
N	Is this a PSD permit Y/N (IDAPA 58.01.01.205.04)

Emissions Inventory			
Pollutant	Annual Emissions Increase (T/yr)	Annual Emissions Reduction (T/yr)	Annual Emissions Change (T/yr)
NO_X	0.0	0	0.0
SO_2	0.0	0	0.0
CO	0.0	0	0.0
PM10	0.0	-0.02	0.0
VOC	0.0	0	0.0
TAPS/HAPS	0.0	0	0.0
Total:	0.0	-0.02	**0.0**
Fee Due	$ 1,000.00		

Comments: